

Sub B1
Cant
A12

~~12. A molding material for use with carbon dioxide refrigerant according to Claim 4,
as a molding material for sealing materials in carbon dioxide refrigerant-contacting
uses.~~

••• REMARKS •••

By the present Preliminary Amendment, the title has been amended to reflect the title in the English translation of the specification.


The specification and claims have been amended to include the changes made to the international application as amended under Article 34.

The claims have also been amended to delete multiple dependency.

Entry of the present Preliminary Amendment prior to the examination of the application is respectfully requested.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby petition therefor and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Respectfully submitted,


Michael S. Gzybowski
Registration No. 32,816
Attorney for Applicant

MSG/mln/209065

BAKER & DANIELS
Suite 800
111 East Wayne Street
Fort Wayne, IN 46802
Telephone: 219-424-8000
Facsimile: 219-460-1700

THE UNIVERSITY OF CHICAGO

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Changes Made to Specification Paragraphs

The first full paragraph on page 1 has been amended as follows:

The present invention relates to a molding material for use with carbon dioxide refrigerant, and more particularly to a molding material for use with carbon dioxide refrigerant with distinguished resistance to carbon dioxide gas permeation and volumic swelling.

The second full paragraph on page 2 has been amended as follows:

An object of the present invention is to provide a molding material for use with carbon dioxide refrigerant, which can be used as suitable molding materials for sealing materials, etc. in carbon dioxide refrigerant-contacting apparatuses.

The third full paragraph on page 2 has been amended as follows:

The object of the present invention can be attained by a molding material for use with carbon dioxide refrigerant, which comprises chlorinated polyethylene having a chlorine content of 25-47% by weight. A blend of chlorinated polyethylene with vinyl chloride-based resin can be also used. furthermore, it is particularly effective for prevention of blister generation to add a specific silane coupling agent thereto.

The first full paragraph on page 11 has been amended as follows:

The present molding materials for use with carbon dioxide refrigerant with the foregoing properties can be used as suitable materials for sealing materials such as packings, gaskets, O-rings, etc. in carbon dioxide refrigerant-contacting apparatuses such as air compressors, refrigerators, supercritical CO₂ extraction(chromatography) apparatuses, etc. using carbon dioxide as a refrigerant, and also as suitable materials for sealing materials for refrigerator oil (polyalkylene glycol, etc.) applicable to the carbon dioxide refrigerant.

The first full paragraph on page 1 has been amended as follows:

The present invention relates to a molding material for use with carbon dioxide refrigerant, and more particularly to a molding material for use with carbon dioxide refrigerant with distinguished resistance to carbon dioxide gas permeation and volumic swelling.

0990225-1064
TOP SECRET

The second full paragraph on page 2 has been amended as follows:

An object of the present invention is to provide a molding material for use with carbon dioxide refrigerant, which can be used as suitable molding materials for sealing materials, etc. in carbon dioxide refrigerant-contacting apparatuses.

The third full paragraph on page 2 has been amended as follows:

The object of the present invention can be attained by a molding material for use with carbon dioxide refrigerant, which comprises chlorinated polyethylene having a chlorine content of 25-47% by weight. A blend of chlorinated polyethylene with vinyl chloride-based resin can be also used. furthermore, it is particularly effective for prevention of blister generation to add a specific silane coupling agent thereto.

The first full paragraph on page 11 has been amended as follows:

The present molding materials for use with carbon dioxide refrigerant with the foregoing properties can be used as suitable materials for sealing materials such as packings, gaskets, O-rings, etc. in carbon dioxide refrigerant-contacting apparatuses such as air compressors, refrigerators, supercritical CO₂ extraction(chromatography) apparatuses, etc. using carbon dioxide as a refrigerant, and also as suitable materials for sealing materials for refrigerator oil (polyalkylene glycol, etc.) applicable to the carbon dioxide refrigerant.

Changes Made to Claims

Claim 1 has been amended as follows:

1. (Amended) A molding material for use with carbon dioxide refrigerant, which comprises chlorinated polyethylene having a chlorine content of 25-47% by weight.

Claim 2 has been amended as follows:

2. (Amended) A molding material for use with carbon dioxide refrigerant according to Claim 1, wherein the chlorinated polyethylene is used as a blend with vinyl chloride-based resin.

Claim 3 has been amended as follows:

3. (Amended) A molding material for use with carbon dioxide refrigerant according to Claim 1 [or 2], wherein an inorganic filler is further contained.

Claim 4 has been amended as follows:

4. (Amended) A molding material for use with carbon dioxide refrigerant according to Claim 1 [or 2], wherein a vinylic, epoxy or methacryloxy silane coupling agent is further contained.

Claim 5 has been amended as follows:

5. (Amended) A molding material for use with carbon dioxide refrigerant according to Claim 1, [2 or 4,] wherein 1-10 parts by weight of an organic peroxide is further contained on the basis of 100 parts by weight of the chlorinated polyethylene or its blend with the vinyl chloride-based resin.

Claim 6 has been amended as follows:

6. (Amended) A molding material for use with carbon dioxide refrigerant according to Claim 1, [2 or 4] for use as a molding material for sealing materials in carbon dioxide refrigerant-contacting apparatuses.

Claim 7 has been added as follows:

7. A molding material for use with carbon dioxide refrigerant according to Claim 2, wherein a vinylic, epoxy or methacryloxy silane coupling agent is further contained.

Claim 8 has been added as follows:

8. A molding material for use with carbon dioxide refrigerant according to Claim 2, wherein an inorganic filler is further contained.

Claim 9 has been added as follows:

9. A molding material for use with carbon dioxide refrigerant according to Claim 2, wherein 1-10 parts by weight of an organic peroxide is further contained on the basis of 100 parts by weight of the chlorinated polyethylene or its blend with the vinyl chloride-based resin.

Claim 10 has been added as follows:

10. A molding material for use with carbon dioxide refrigerant according to Claim 4, wherein 1-10 parts by weight of an organic peroxide is further contained on the basis of 100 parts by weight of the chlorinated polyethylene or its blend with the vinyl chloride-based resin.

Claim 11 has been added as follows:

11. A molding material for use with carbon dioxide refrigerant according to Claim 2, for use as a molding material for sealing materials in carbon dioxide refrigerant-contacting apparatuses.

Claim 12 has been added as follows:

12. A molding material for use with carbon dioxide refrigerant according to Claim 4, for use as a molding material for sealing materials in carbon dioxide refrigerant-contacting apparatuses.

FOOTNOTES